

Listing of Claims:

1. (Currently Amended) A tip optical element unit for
an immersion microscope objectives objective for observing a
sample, said tip optical element unit comprising:

a first optical element; and

5 a second optical element [,] cemented to each other,
wherein the first optical element; and

an annular light-blocking area ~~is~~ provided ~~on~~ at an
interface between the first optical element and the second
optical element;

10 wherein, among optical elements within the objective, the
first and second optical elements are closest to the sample; and
wherein a gap between the sample and the first optical
element is filled with liquid having a refractive index larger
than air.

2. (Currently Amended) A tip optical element unit for
an immersion microscope objectives objective for observing a
sample, said tip optical element unit comprising:

a first optical element; and

5 a second optical element; and, wherein

a light-blocking area which is formed on a surface of one of the first optical element and the second optical element, and which is shaped so as to avoid blocking an effective beam; , and

wherein the first optical element and the second optical

10 element are cemented to each other, with and the surface on which
· the light-blocking area is formed [[,]] is sandwiched between the
first optical element and the second optical element;

wherein, among optical elements within the objective, the first and second optical elements are closest to the sample; and wherein a gap between the sample and the first optical element is filled with liquid having a refractive index larger than air.

3. (Currently Amended) A tip optical element unit for
an immersion microscope ~~objectives~~ objective for observing a
sample, said tip optical element unit comprising:

a first optical element; [[,]]

5 a second optical element; and

a third optical element; and, wherein

a light-blocking area which is formed on a surface of one of the first optical element and the second optical element, and which is shaped so as to avoid blocking an effective beam;

10 wherein the first optical element and the second optical
element are cemented to each other, ~~with a~~ and the surface on

which the light-blocking area is formed [[,]] is sandwiched between the first optical element and the second optical element; and

15 wherein the third optical element is embedded at a center of the first optical element and the second optical element; and
wherein, among optical elements within the objective, the
first, second and third optical elements are closest to the
sample.

4. (Currently Amended) ~~A~~ The tip optical element ~~for~~ immersion microscope objectives unit according to claim 1, wherein a concave portion is formed at a center of the first optical element and the ~~sec-~~ and second optical element.

5. (Currently Amended) ~~A~~ The tip optical element ~~for~~ immersion microscope objectives unit according to claim 1, wherein the light-blocking area is formed of one of an evaporated metal film, a painted material, and a metal leaf.

6. (Currently Amended) ~~A~~ The tip optical element ~~for~~ immersion microscope objectives unit according to claim 3, wherein the third optical element is ~~a minute lens which~~ smaller in size than both the first optical element and the second
5 optical element and is different in dispersion and refractive

index from the first optical element and the second optical element.

7. (Currently Amended) A method of making a tip optical element unit for an immersion microscope ~~objectives~~ objective for observing a sample, said method comprising the steps of:

5 placing a beam restricting means element on a surface of one of a first optical element and a second optical element and defining ~~a~~ providing a light-transmitting area ~~transmitting which~~ transmits an effective beam and a ~~lightblocking~~ light-blocking area formed around the light-transmitting area ~~to with~~ the beam restricting means element; and

10 cementing the first optical element and the second optical element to each other ~~, with such that~~ the beam restricting means element is sandwiched between the first optical element and the ~~10~~ second optical element;

15 wherein, among optical elements within the objective, the first and second optical elements are closest to the sample; and wherein a gap between the sample and the first optical element is filled with liquid having a refractive index larger than air.

8. (Currently Amended) A method of making a tip optical element unit for an immersion microscope ~~objectives~~ objective for observing a sample, said method comprising the steps of:

5 forming a light-blocking area on a surface of one of a first optical element and a second optical element, said light-blocking area being shaped so as to avoid blocking an effective beam;

10 cementing the first optical element and the second optical element to each other, with such that the light-blocking area is sandwiched between the first optical element and the second optical element;

forming a concave portion at a center of the first optical element and the second optical element; and

embedding a third optical element in the concave portion;
wherein, among optical elements within the objective, the
15 first, second and third optical elements are closest to the
sample.

9. (Currently Amended) A The tip optical element for immersion microscope ~~objectives~~ unit according to claim 2, wherein the light-blocking area is formed of one of an evaporated metal film, a painted material, and a metal leaf.

10. (Currently Amended) A The tip optical element for immersion microscope ~~objectives~~ unit according to claim 3,

wherein the light-blocking area is formed of one of an evaporated metal film, a painted material, and a metal leaf.

11. (Currently Amended) ~~A~~ The tip optical element ~~for~~ immersion microscope objectives unit according to claim 4, wherein the light-blocking area is formed of one of an evaporated metal film, a painted material, and a metal leaf.